**Community Information Group Meeting**
**Motorola 52nd St. Superfund Site**
**June 22, 2011, 6:20 to 8:20 pm**
**Gateway Community College, Phoenix, AZ**

**Project Team and Regulator Attendees:**

**United States Environmental Protection Agency (EPA):** Janet Rosati, Leana Rosetti, Gerry Hiatt, Martin Zeleznik

**Shaw Environmental, Inc. (Shaw)**: Sue Kraemer, Doug Hulmes

**Arizona Department of Environmental Quality (ADEQ):** Wendy Flood, Brian Stonebrink, Delfina Olivarez, Wayne Miller, Felicia Calderon

**Technical Assistance Grant (TAG) Technical Advisor:** Mario Casteneda

**CIG Members:**
Mary Moore, Resident
Martha Brightenbach, Resident
Rene Chase-Dufault, Resident

**Additional Attendees:**

Barbara Murphy, Freescale consultant
Jenn McCall, Freescale
Tom Suriano, Freescale
Candice Morrison, U of A
David Abranovic, ERM
Denise Moreno, U of A
Josephine Duffy, Greater Green Gables Neighborhood Assn
Judy Heywood, APS
Robert Livermore, ERM
Rolf Haden, ASU
Sadie Jo Smoky, AZ Republic
Sherry B. Williams
Steve Brittle, Don't Waste AZ
Thomas Bruton, ASU
Troy Kennedy, Honeywell
Lisa Clifton, Resident
Shoshana Leon, Honeywell
LeeAnna Walker, Arcadis
Pete Span, Resident

A Community Information Group (CIG) meeting was held at Gateway Community College located at 108 N. 40th Street in Phoenix, Arizona from approximately 6:20 pm to 8:20 pm on June 22, 2011. The primary purpose of the meeting was to present the public with recent soil vapor sampling data from OU1, inform them of upcoming investigations; and provide a forum for interaction between stakeholders, regulators and the public.

**6:20 pm:** Ms. Rosetti began the meeting. She introduced herself and members of the audience. She gave a synopsis of topics to be covered in the meeting. She discussed follow up items from the last meeting in regards to the End Use of treated water extracted from OU1, and explained that ON Semiconductor will soon cease using the water in their operations. She indicated there will be no direct use, as the water is proposed to be placed into the Old Crosscut Canal, which is not directly used; it flows into the Grand Canal. Ms. Rosetti indicated the uses of the Grand Canal water is primarily irrigation, 85% of which is agricultural, 15% is urban; some Grand Canal water is also used for aquifer recharge.

Ms. Brightenbach voiced concern about urban irrigation (using the water to irrigate residential gardens). Ms. Rosetti indicated that Freescale can provide the effluent quality data, which meet drinking water standards; and furthermore the water is diluted by the Grand Canal.

Ms. Rosetti indicated that land subsidence is an issue in Arizona and citizens voiced concerns about the groundwater extraction causing subsidence issues in previous meetings. She indicated that Mr. Brian Conway from AZ Department of Water Resources is the person responsible for monitoring subsidence, and he reported that his agency has not detected subsidence in the OU1 area. Ms. Rosetti indicated that Mr. Conway is available to answer questions concerning the issue. Subsidence data is also available from Arizona Geological Survey.

In regards to meeting schedules/agendas, Ms. Rosetti indicated the TAG will have more meetings, due to insufficient time in the meetings to cover all topics. She explained that the meeting regarding the Honeywell Human Health Risk Assessment was postponed after discussion with the TAG recipient and the EPA Project Manager. Since the Assessment was based on historic data, and there will soon be an updated tech memo that will have current information, it would be more relevant for the community to wait until the tech memo comes out before it is discussed at a meeting.

Ms Brightenbach asked why, in the discussion of OU1 treated water end use options, there would be sediment build up in reinjection wells. Mr. Suriano from Clear Creek explained the normal scaling of natural sediment that occurs during injection.

Ms. Brightenbach asked about contaminants being in soil, but not groundwater and vice versa. Ms. Rosetti answered that these occurrences are not abnormal at Superfund sites, depending on how the contamination occurred and moved through different media.

Mr. Brittle asked if the decision on where to inject treated water is up to "the bureaucrats" or the public. Wendy Flood and Ms. Rosetti both indicate that after public comment and review of comments, the decision is ultimately made by ADEQ/EPA. They both reiterate that public comments are valuable and are thoughtfully considered in the decision making.

Ms. Brightenbach asked why water could not be injected in multiple places. Ms. Flood indicated that this question was included in the comments to the last report, and the answer will come in an upcoming report.

**6:45 pm**: Ms. Rosati begins presentation of OU1 soil vapor data. She explains that soil vapor sampling is the first step in completing the health assessment. She displays a map, explains the color coding of data. She indicates that the Soil Gas Screening Levels were exceeded in several places, and pointed out the resulting step out locations where they collected additional samples. She indicated that concentrations were generally higher in the 15' samples than the 5' samples. Since there were elevated soil gas readings, Freescale will proceed with conducting indoor air sampling. She explained the need to obtain access agreements for this sampling. She discussed the need to obtain complimentary lines of evidence: groundwater data, sub-slab soil gas data, and indoor air data. If indoor air data is higher than the sub-slab data, then it is likely there is a source inside the structure. She explained sub-slab

depressurization mitigation systems that could be used if vapor intrusion is found to be occurring, and that contaminants collected by these systems are low enough to vent to the atmosphere without treatment. She indicated that Freescale is paying for the next sampling round; and Freescale is currently working on the Work Plan for sub-slab and indoor air sampling.

Ms. Moore voiced concern about elevated chloroform and bromodicholoromethane. Ms. Rosati indicated they are reviewing that data as well, and trying to evaluate if there is a correlation with elevated TCE and PCE data. Ms. Moore voiced concern about vinyl chloride. Mr. Suriano from Clear Creek, indicated there was one detection right at the detection limit, but below action levels.

**7:00 pm**: Dr. Gerry Hiatt begins presentation regarding the Kachina Joray (KJ) facility and indoor air sampling there and in surrounding homes. He explains the very high levels of TCE and PCE from soil gas samples beneath the facility, which are well over screening levels, and the concern that vapor intrusion could be creating an unhealthy environment for workers and residents in the area. He explained that six sets of samples were collected in residential homes, and two samples inside two businesses; in a neighborhood adjoining the KJ facility. Three types of samples were collected: sub-slab, 24 hour indoor air, and ambient (outside) air. The health-based screening level is 0.41 micrograms per cubic meter ($\mu g/m^3$); and the ambient air in Phoenix is close to that level. He indicated that the indoor air results are similar to the ambient concentrations. He explained the sub-slab results for the homes; and concluded that vapor intrusion does not appear to be occurring in the homes that were sampled. In the one home in which indoor air concentrations were elevated, the sub-slab results were non-detect.

He explained that the sub-slabs in two businesses were also sampled; however, the indoor air was not sampled as VOCs are utilized in businesses' operations. He explained that one of the sub-slab samples had high concentrations; however he did not believe it was a serious concern for the workers; and he has had discussions with business owners regarding how to protect the workers.

Dr. Hiatt presented conclusions: It does not appear that vapor intrusion is occurring in the homes, as indoor air results are very similar to outdoor air results. It does appear that soil vapor from KJ has migrated offsite. There is some potential that vapor intrusion is occurring at businesses that were sampled. He thinks the risk is low, and they will be taking actions at the KJ facility to address the said potential vapor intrusion at nearby businesses.

He explained the additional sampling at the KJ facility itself: they collected 24 hour indoor air samples and outdoor air samples. They found PCE and TCE in the building, and it is clear that vapor intrusion is occurring. He explained risk for long-term exposure. He explained that EPA may require mitigation at the facility.

**7:15 pm**: Martin Zelenik (EPA) begins his presentation. He explained that sub-slab depressurization systems will likely not work at the KJ facility based on other, similar case studies. The concentrations underneath the facility are too high for such a system to function. As such, they will likely do soil vapor extraction.

Ms. Brightenbach asked about units. Dr. Hiatt explains all units are micrograms per cubic meter ($\mu g/m^3$).

Ms. Brightenbach asked about step-out locations. Mr. Zeleznik explains data and rationale for focus of the study. Ms. Moore asked if all data has been validated; Dr. Hiatt replied yes; and explained that some of the non-detect results are not shown on the map.

Ms. Moore asked about the high result on the fence line, and where did the contamination go? Mr. Zeleznik replied that part of the ongoing remedial investigation is to define the extent of contamination in all directions.

Ms. Moore asked about the residential result above the screening level, and if EPA only took one sample. Dr. Hiatt confirmed it was only one sample.

Mr. Robert Livermore asked about the depth of the fence line sample; EPA answered 10 feet below ground surface.

Ms. Moore inquired about concentrations in groundwater. Mr. Zeleznik responded there is no groundwater underneath KJ.

An ASU student voiced concern that if SVE was conducted close to DNAPL contaminated groundwater; it could moblize DNAPL from the groundwater into the vadose (shallow) zone, and thus cause more problems. Mr. Zeleznik responded that this was an interesting question, and that the site would be characterized to make sure this doesn't happen. Ms. Rosetti explained that there is no groundwater underneath the facility.

Mr. Brittle indicated he appreciated the aggressive action the EPA is taking with the KJ facility; but was disappointed that ADEQ knew about the issue in 2009, and did not take action.

A citizen asked about concentration in the ambient air, which is close to the health-based screening level. Dr. Hiatt indicated that air quality in Phoenix is indeed relatively poor. He indicated that the general air quality in Phoenix is a concern to the EPA Air Division.

A citizen asked if there is ambient air data outside of the study area. Ms. Rosetti indicated that the Air Quality Mgmt District would likely have that data, and this could be a follow up item for the next meeting.

Mr. Brittle indicated that EPA should research ambient air data outside of the Superfund area, and investigate whether it's possible that soil gas from KJ may be affecting ambient air as well.

A citizen expressed concerns that utility lines are a potential sink for VOC vapors. Ms. Rosati explains that utility locations are addressed in the course of the investigation.

Mr. Castaneda indicated that additional vapor intrusion sampling should be conducted at OU1 and KJ. Ms. Rosati indicated they will do a winter sampling event in OU1, and if they find potential harmful indoor air results in this round, they will not wait for additional sampling to proceed with mitigation efforts.

**7:30 pm** Brian Stonebrink presented a summary of OU2 ongoing activities. He indicated that ADEQ and EPA submitted comments on the Honeywell Human Health Risk Assessment on June 15. The next step is for Honeywell to submit a work plan in July to conduct an indoor air vapor intrusion assessment as a follow up to the Final Focused Human Health Risk Assessment. The goal is to complete the Feasibility Study. ADEQ and EPA are currently reviewing the OU2 2010 Effectiveness Report received on April 15th. ADEQ is negotiating with Honeywell to complete an investigation of Honeywell Areas 13 and 21 under an Administrative Order of Consent.

Ms. Moore indicated she would like a more substantive report, rather than just a list of activities. Ms. Rosetti indicated there is nothing really substantive to report in this OU, but ADEQ and EPA just wanted to keep the public informed of recent activities.

Ms. Moore suggested just a written list of these types of updates and voiced her appreciation that meeting minutes from previous meetings were sent to her. Ms. Brightenbach indicated she would like to have the minutes/comments mailed to her as hard copy. Ms. Rosetti suggested skipping the EPA update regarding OU3, in immediate response to Ms. Moore's suggestion. However the general sentiment was to continue with the OU3 update.

Ms. Rosati gave a brief summary of new groundwater and vapor wells in OU3; and explained that groundwater concentrations have gone down, likely due to the treatment at the source in OU1 and OU2. She explained the correlation between groundwater and soil vapor data, and new well location rationale.

Ms. Rosetti decides to skip the 5 year review outline, with approval from Ms. Brightenbach, Ms. Chase-Dufault and Ms. Moore.

**7:40 pm** Wendy Flood began a presentation on the OU1 effectiveness report. She explained that the effectiveness report acts as a checks and balances system. She indicated a primary goal of the existing Record of Decision is to capture and contain contaminants. The OU1 treatment plant is capturing the majority of contaminants. She provided several slides of plumes; before treatment and the most current. She indicated the OU1 treatment plant is a temporary remedy. The biggest challenge for OU1 treatment is the bedrock, in which DNAPL is difficult to extract. She indicated there may be more extraction necessary near the old cross-cut canal, and further delineation further to the north due to increasing TCE trends. She summarized upcoming OU1 activities. Upcoming reports will incorporate comments from the public and other involved parties.

Ms. Brightenbach requested clarifications regarding acronyms. Ms. Rosetti indicated that an acronym list was included in the binders given to CIG members, but EPA can also bring them to future meetings.

Ms. Brightenbach noted that the areas of study have shrunk, and inquired about contaminants in bedrock outside these study areas. Ms. Flood indicated that bedrock will continue to be monitored. Ms. Brightenbach pointed out that the bedrock has not been cleaned up. Ms. Flood responded that they will continue to monitor and cleanup the study areas which include bedrock; the Bedrock Pilot Study is part of this effort. Ms. Brightenbach wanted assurance the bedrock would not be forgotten. Ms. Flood assured her it would not be forgotten.

Ms. Moore asked if the Effectiveness Report comments will be sent to the public. Ms. Flood indicated they will go to the established repository, and indicated she can give copies to anyone who requests them.

Ms. Moore wanted clarification regarding tables in reports. She voiced concerns about lack of qualifiers to data. She asked specifically about data from well DM-6-200 and pointed out odd, historical data. Ms. Kraemer explains anomalous data and the evaluation process of such data. Ms. Moore asked that the odd data be explained in the report.

Ms. Moore commented about Table 4 regarding 9 wells in the parking lot; she wanted more historical data in one page of the report. She questioned the pounds of TCE extraction per year.
Ms. Flood indicated that the pounds extracted per year are one the items that the agencies are reviewing and had commented on.

Ms. Moore also had questions regarding carbon treatment. Ms. Flood asked if Ms. Moore would like to submit a list of questions regarding specific data to be addressed in detail; to maximize coverage of topics in the meeting.

Ms. Moore asked specifically about higher concentrations in effluent data than influent data. Ms. Flood indicated they will review previous comments to see if they addressed the high effluent data and get back to Ms. Moore later.

Ms. Moore asked about the increasing trend in well DM-313. Ms. Flood indicated they have been closely watching that well the last several years.

Ms. Moore voiced concern about a potential unidentified source of PCE. Ms. Flood indicated they are asking the RP's to further investigate the potential for another source.

Mr. Castaneda expressed concerns about drawdown from extraction wells which may leave contamination in the vadose zone from drawdown; and would reinjection near extraction wells be a possible solution. He was also concerned about contaminants in the north comingling with the 56$^{th}$ St. and Earll plume (State Superfund Site); he indicated he would like the specific source to be identified (OU1 or the 56$^{th}$ St. and Earll).

Ms. Moore provided a TAG meeting update, it will be the last Wednesday in August, in which they will be introducing their new technical advisor – Richard Rushport. Ms. Moore praised to Mr. Castaneda for his work; particularly for recording meetings and making them available to the public
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Ms. Rosetti presents a call to the public, and welcomes public comment particularly regarding what to focus on in the 5 year review discussion at the next CIG, and any requests for future public meetings.

**8:20 pm** Meeting adjourned